Saskatchewan Agriculture and Food

FARM *FACTS*

Organic Farming - An Introduction to Crop and Livestock Production

Introduction

Organic agriculture focuses on production practices and record keeping in compliance with acceptable standards. This document will provide basic information on organic certification and outline general requirements, as specified in an organic standard, for crop and livestock production.

Organic Certification

A farm may be classified as organic if it meets the criteria stipulated in a set of guidelines known as an organic standard. In Saskatchewan there are numerous certification agencies (see Certification Agencies in Saskatchewan) whose purpose is to provide, administer and control an organic standard. The standard provides guidelines for crop and livestock production, storage, transportation, and processing of organic products.

Producers are free to adopt any of a number of recognized standards. Although slight variations in standards do exist between certification agencies, a prevalent commonality is the basis for all standards. It is through this commonality that quality assurance is maintained.

The Certification Process

The process involved in certification may differ amongst certification agencies. The following is adapted from information provided by the Saskatchewan Organic Directorate (SOD) which can be viewed at **www.saskorganic.com/**.

Established on Feb. 8/98, SOD is an umbrella group whose mandate is to promote and develop the organic industry, and serve as a clearinghouse of organic information in Saskatchewan. Membership includes certification bodies, corporate members, associate members, supporting members, and producers at large. Debbie Miller, Administrator – (306) 476-2089

- Contact a certification agency and obtain questionnaires, standards, licensing agreements, and other associated forms. Carefully read the Standard and Materials List. Many people contact two or more certifying agencies and compare information. This allows producers to select the agency that best fits their needs. It is also advisable to talk to producers of different organizations, as well as buyers or traders, before deciding on a certification agency. Certain certification programs may not be recognized in certain markets.
- Review field histories (past five years), farm inputs, and management plans to assess compliance with the standards. Storage records and a lot-numbering system should also be maintained.
- Review current crop plans to ensure that soil building rotations are in place. Develop clear field maps (highlight borders) and denote adjoining land use.
- Records that need to be kept by the farmer:
  a) Input documentation - labels, rates and dates of applications, field identification, and purchase invoices.
  b) Seed and inoculants - genetically engineered seed and inoculants that contain genetically engineered ingredients are prohibited.
  c) Field history - records showing crops planted by field number.

d) Harvest records - may be a part of production and/or storage records.
e) Storage or inventory records – commodity, movement, dates and storage unit number. Include records of buffers harvested, stored, and marketed separately.
f) Sale invoices - Bills of Lading, lot numbers, and proper labeling of organic products, where applicable. Lot number should allow tracking of crop back to the field of production.
g) Transportation - inspect trucks before loading organic crops. This is usually documented with Bills of Lading, truck inspection affidavits, or storage records.
h) Water test for coliform bacteria and nitrates is required annually for livestock producers.

The Certification Agency

A certification coordinator will make a preliminary review of the questionnaire, maps, field histories, etc. If the application is complete, the coordinator will assign an organic inspector.

The Organic Inspector

An inspection may take anywhere from 2-5 hours, depending on the complexity of the operation. During the inspection, the inspector verifies the information as stated on the questionnaire, physically inspects the fields, buildings, and equipment, assesses contamination risks, and reviews production and sales records. At the same time, the inspector evaluates the condition of the crops, the fertility management program, pest and weed management strategies, record keeping system, and the producer's understanding and commitment to organic standards and overall compliance with the standard.

a) Verifies maps and crop plans.
b) Tours fields: condition of crops, soil tilth, weeds, pests, biodiversity, conservation, crop rotation, adjoining land use, buffer strips.
c) Inspects buildings and equipment: type and condition, pest and weed control, co-mingling potential.
d) Reviews water source analyses, if applicable.
e) Reviews and assesses audit trail records.
f) Completes certification agency paperwork.
g) Educates the producer on certification agency policies.

The inspector does not make the certification decision. The inspection report, the questionnaire, and all associated paperwork are sent to the certification agency, which can approve, conditionally approve, or reject the application.

Organic Crop Production

The transition to organic grain production requires a slight adjustment in how weeds and pests are viewed. A certain amount of tolerance to weeds and pests is probably inescapable. The approach to management is altered in that the organic producer relies entirely on an integrated biological and cultural strategy to address weed, pest, and soil fertility concerns.

Soil fertility is restored and maintained by promoting biological diversity, incorporating soil-building green manure crops and using soil conservation practices. Productivity is maintained by integrating biological and cultural management techniques.

Saskatchewan Agriculture & Food (SAF) has six Farm Facts highlighting agronomic management techniques for the organic production system. These Farm Facts and a video highlighting these concepts are available at your SAF Rural Service Centre.

Systematically converting only portions of the farm in any one season is generally an accepted and recommended practice. This allows the producer to manage risk over time. Easing into the system provides time for the producer to learn and to adapt the land base to a revised production regime. Most guidelines also stipulate that the entire farm be converted within a certain timeframe. Some general tips on getting started in organic farming are:

1) Start small, learn as you go, and have a long-term plan;
2) Talk with and learn from organic farmers. Attend meetings, familiarize yourself with issues on certification and standards, and get involved;
3) Research markets and organic production practices.

Canadian Wheat Board Requirements

All wheat and barley exported and/or sold for human consumption in export and domestic markets fall within the jurisdiction of the Canadian Wheat Board (CWB). A number of options exist:

1) deliver to local organic grain companies and mills who are handling agents and/or accredited exporters of the CWB;
2) sell into export markets either independently or through a broker

– this requires a Producer Direct Sale with the CWB; and

3) mill your grain on-farm and sell within Canada without the Producer Direct Sale requirement. If exporting this flour, a Producer Direct Sale is required.

To do a Producer Direct Sale, farmers must have a permit book and PIN number. To apply for a PIN number, contact the CWB Call Centre at 1-800-ASK-4-CWB (1-800-275-4292). Please contact Donna Youngdahl, CWB Organic Marketing Manager, who will assist in, and explain, the Producer Direct Sale. Ms. Youngdahl can be contacted through the Call Centre or directly at (204) 983-3635.

Organic Livestock Production

Although successful organic grain farming is not dependent on the inclusion of livestock, having a mixed operation does complement the holistic approach of organic agriculture, especially through nutrient recycling. Some underlying principles of organic grain production are the minimization of soil degradation and erosion, and the replenishment and maintenance of soil fertility by encouraging biological activity within the soil. All essential nutrients are present to some degree in manure; the biological and physical properties of manure also help to improve soil structure and composition. As well as reaping the benefits of nutrient recycling, producers are increasing their on-farm revenue by adding value to their grain.

Producers and/or ranchers who are considering organic livestock production should gather information on production requirements, including cost-of-production and the specifics of an organic standard.

Markets (organic vs. natural)

An organic product must comply with stringent production, animal husbandry and processing requirements of an organic standard. The marketing term "natural" is not as clearly defined as "organic." In general terms, a natural meat product is produced without the use of antibiotics and artificial growth stimulants. Organic meat production requires additional provisions that include an audit trail and third-party verification.

For information and assistance in marketing organic beef, please contact the Canadian Organic Livestock Association. Sam Rhode, President - (306) 845-3119.

Certification Standards

There may be slight differences in requirements between various organic standards. Producers should always review the standard to which they are complying and ensure acceptance of products and practices by their particular certifying organization. It is not the intent of this publication to outline detailed requirements of organic crop and livestock production, but general guidelines can be given.

Transition period

Most organic guidelines require a three-year transition phase in which the land must be free of any prohibited materials such as chemicals and synthetic fertilizers (contact a certification agency for a list of prohibited substances). The goal during this period is to use management strategies that make the soil as fertile, weed-free, and healthy as possible going into the certified period. The grain harvested during the transition period is not eligible for the organic label.

In instances where land has not been registered in an official transition program, and has not received prohibited materials for a minimum of three years, the certification agency may simply require a pre-year inspection. This essentially shortens the time from enrollment to certification from three years to one year.

Buffer zone

If adjoining land offers the possibility of contamination, a physical barrier or buffer strip must exist. Buffer strips are generally 25 feet, minimum.

General Animal Husbandry

Producers should select types of livestock that are suitable to the management and facilities of their farms to minimize stress and disease potential. On-farm conditions should accommodate the natural behavior of the livestock. Access to the outdoors, shade and shelter must be provided. Excessive crowding of animals is prohibited – the space allotted per animal is generally twice that given animals in a non-organic environment.

Animal Health Care Practices

Producers of organic livestock should establish, maintain and document their preventive health care practices, particularly the practice they employ if illness occurs, and the protocol for determining when a sick animal must receive a prohibited drug. If prohibited drugs are used, the animal must be identified and sold into non-organic markets. In such a

case, detailed records of the medication, animal identification and receipt of the conventional sale must be retained. Ruthless culling of chronic problem animals is the best way to develop a healthy population that is adapted to a particular farm.

A key ingredient in preventative health care is the reduction of stress. Animals should receive housing, pasture and sanitation conditions that minimize the occurrence and spread of disease. Conditions must also provide for exercise, freedom of movement and reduction of stress that is appropriate to the species.

Feed Requirements
All feed sources must be certified organic. Harvesting and processing must also occur in certified facilities.

Stock Replenishment
Livestock to be sold as organic must be maintained under continuous organic management. Different types of livestock will have different requirements concerning stock replenishment. In the case of beef, non-organic breeder stock may be brought into an organic operation provided that the animals, if gestating, are brought into the organic operation prior to the third trimester. There are no restrictions on male breeding stock and the practice of artificial insemination is discouraged.

Vaccinations and Antibiotics
The use of certain vaccines is permitted; however, antibiotics are prohibited in order to maintain organic status.

Parasite Control
A common method of parasite control is the use of diatomaceous earth. This product can be used as a feed ingredient for certain livestock and is claimed to be effective for this purpose. Diatomaceous earth is also used externally as a dust for lice.

Growth Hormones
The use of growth hormones is prohibited.

Manure Management
Producers are required to manage manure in a manner that does not contribute to contamination of crops, soil or water by plant nutrients, heavy metals or pathogenic organisms. Processing and application should be such that nutrient recycling is optimized. Composting is highly recommended and restrictions on the application of raw manure do exist.

Organic Organizations in Saskatchewan

Certifying Agencies – February, 2002

COCC - Canadian Organic Certification Cooperative, contact Anne Ford, Swift Current, (306) 778-6451, fax: (306) 778-6390.

Pro-Cert Organic Systems, Wallace Hamm, Saskatoon, (306) 382-1299, fax: (306) 382-0683.

SOCA - Saskatchewan Organic Certification Association, contact Rusty Plamondon, Tisdale, (306) 873-2207, fax: (306) 873-4941.

OCIA – The Organic Crop Improvement Association is an international program of certification to strict organic standards. OCIA has thousands of certified members in 17 countries.

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